

Supporting Information for

Tetrathiafulvalene-L-glutamine conjugated derivative as supramolecular
gelator for embedded C₆₀ and absorbed rhodamine B

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1. Additional data

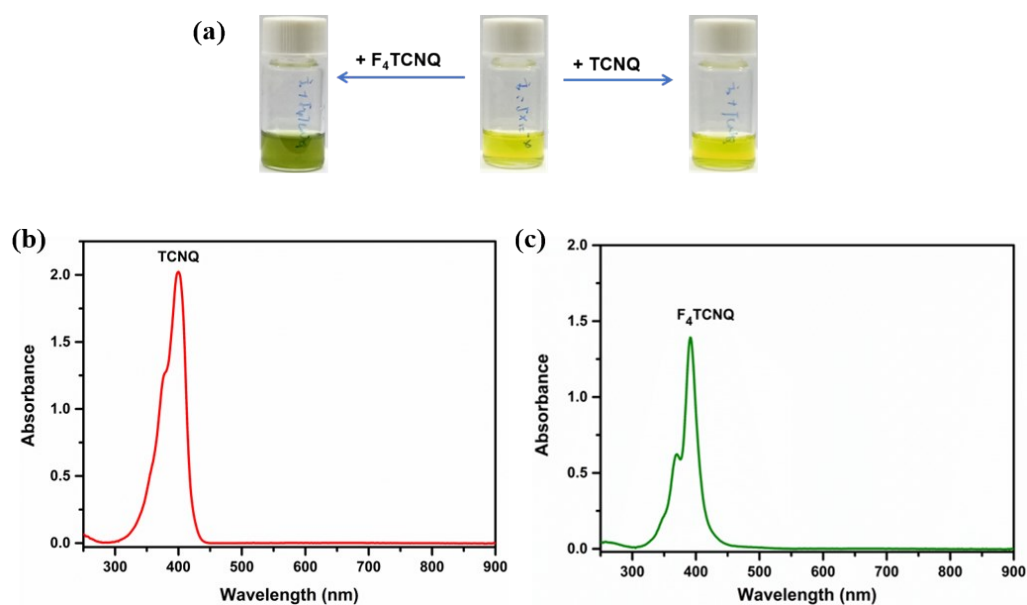


Figure S1. (a) The color changes of the gelator in CH₂Cl₂ solution after the addition of 1.0 equivalent of TCNQ and F₄TCNQ, and the UV-Vis spectra of the TCNQ (b) and F₄TCNQ (c) in CH₂Cl₂ solution (the concentration was 5×10^{-5} M, respectively).

Table S1. The gelation behavior of the gelator.

Solvent	Phase	CGC (mg/mL) ^b
<i>n</i> -hexane	TG ^a	8.5
Cyclohexane	TG	9.5
Benzene	CG	10.5
Toluene	CG	10.0
CH ₂ Cl ₂	OG	18.5
Ethyl acetate	P	—
THF	P	—
DMSO	P	—
DMF	P	—
CH ₃ CN	IS	—
Methanol	IS	—
Ethanol	IS	—

^a: TG: Translucent gel, CG: Clear gel, OG: Opaque gel, P: Precipitation, IS: Insoluble.

^b: CGC: Critical gelation concentration.

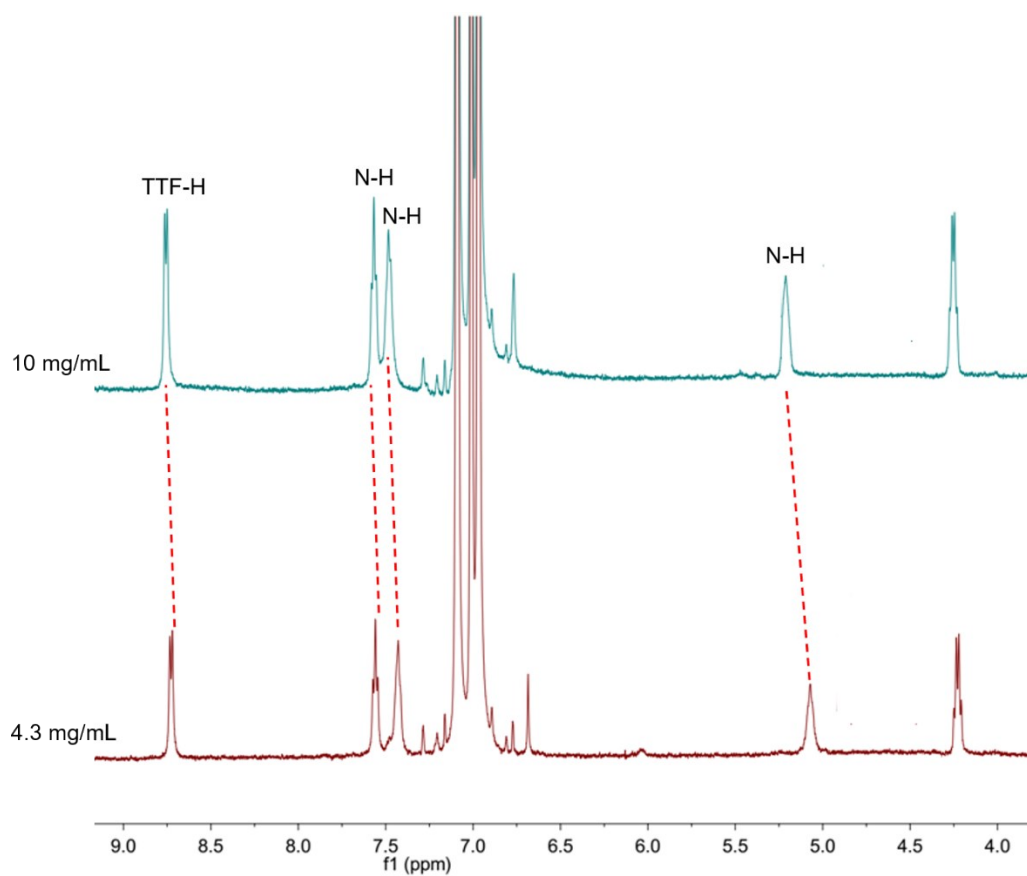


Figure S2. Concentration-dependent ^1H NMR spectra of **1** in $[\text{D}_8]$ toluene.

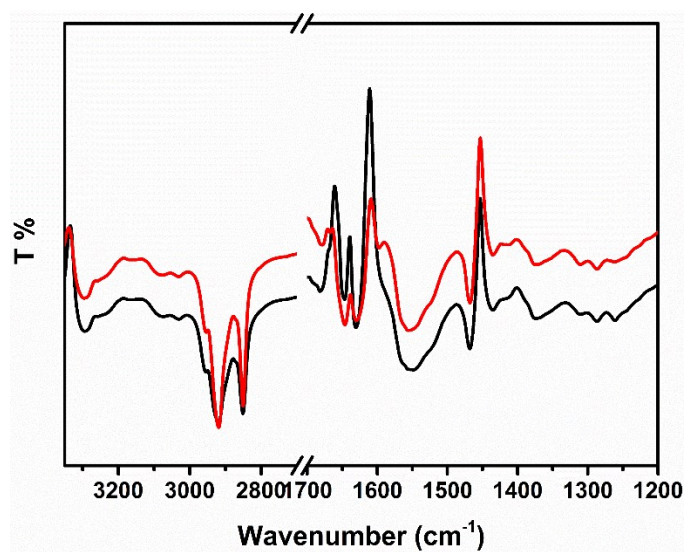


Figure S3. FT-IR spectra of the native xerogels prepared from **1** in cyclohexane (black line) and benzene (red line).

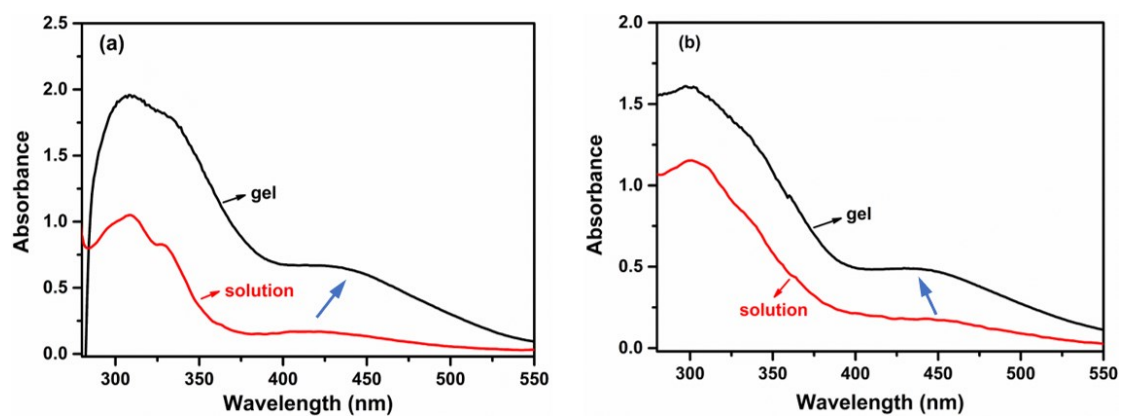


Figure S4. UV-Vis spectra of the gelator **1** in the solution and gel states prepared in toluene (a) and *n*-hexane (b).

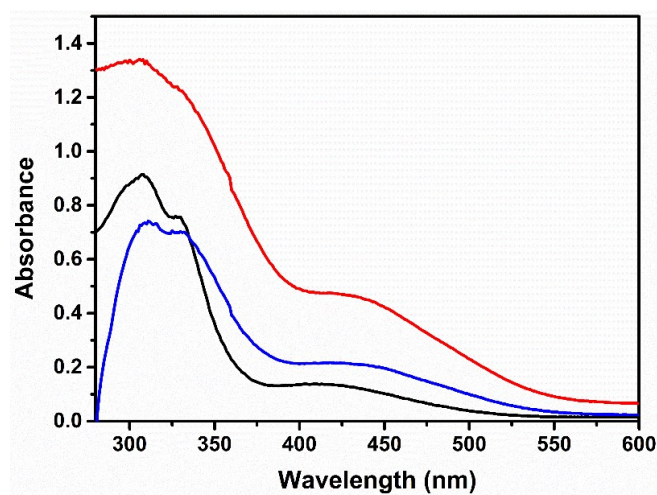


Figure S5. UV-Vis spectra of the gelator **1** in CH₂Cl₂ solution (black line) and the gels formed in cyclohexane (red line) and benzene (blue line).

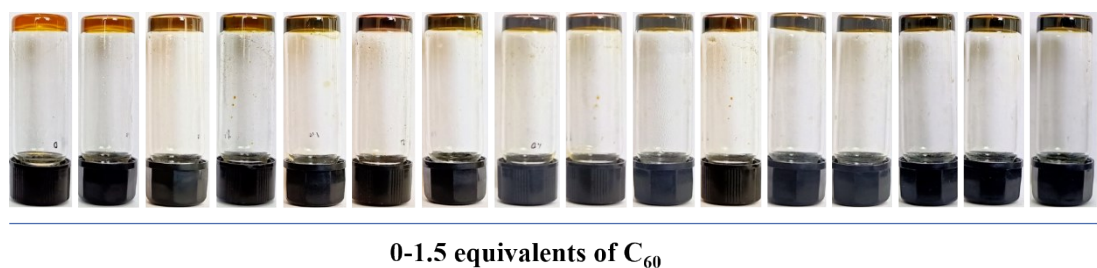


Figure S6. The color of the binary gel containing 0-1.5 equivalents of C₆₀.

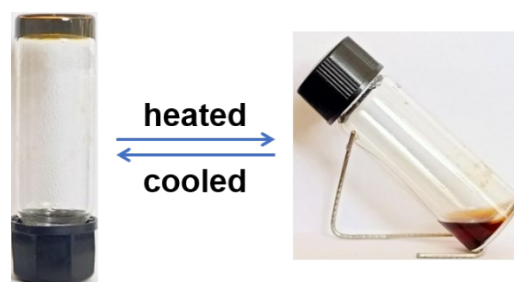


Figure S7. The thermal reversibility of the CT complex gel containing 1.0 equivalent of C_{60} .

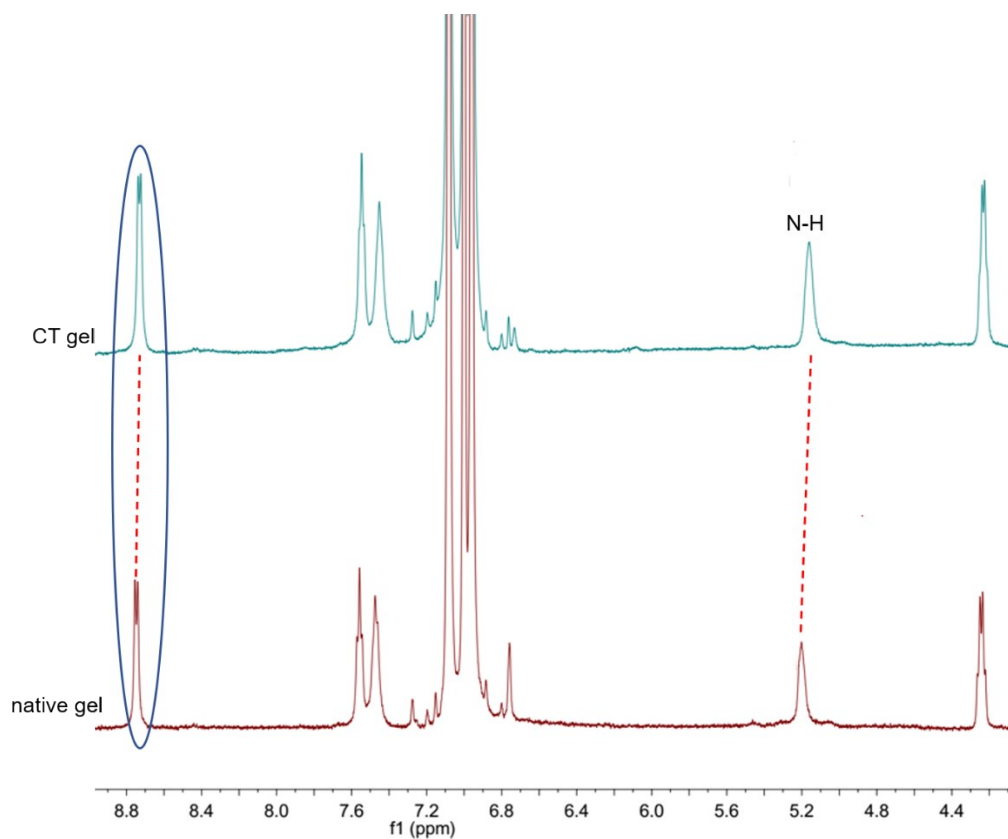


Figure S8. 1H NMR spectra of **1** (10 mg/mL) in native gel and CT complex gel with 1.0 equivalent of C_{60} in $[D_8]$ toluene.

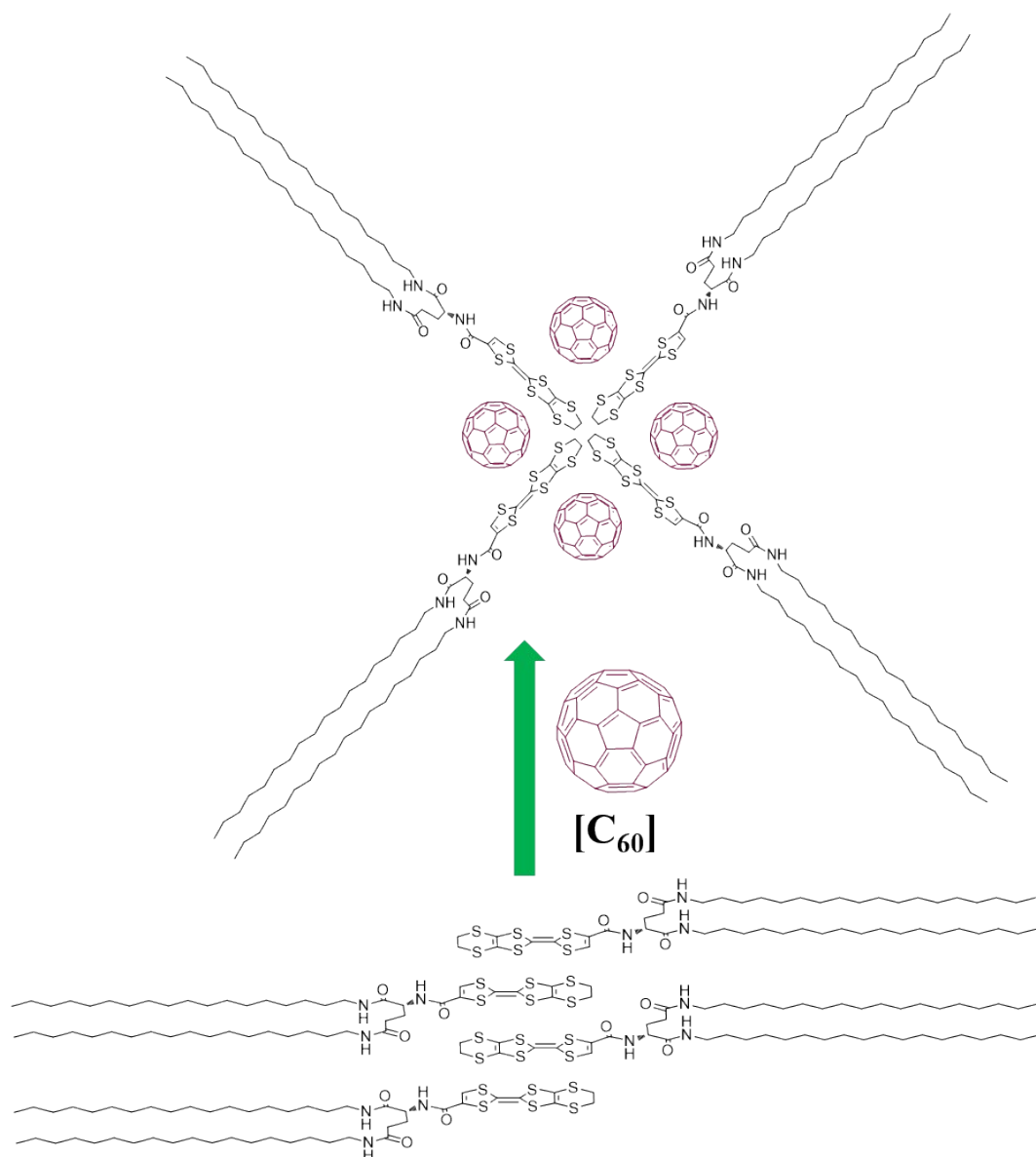
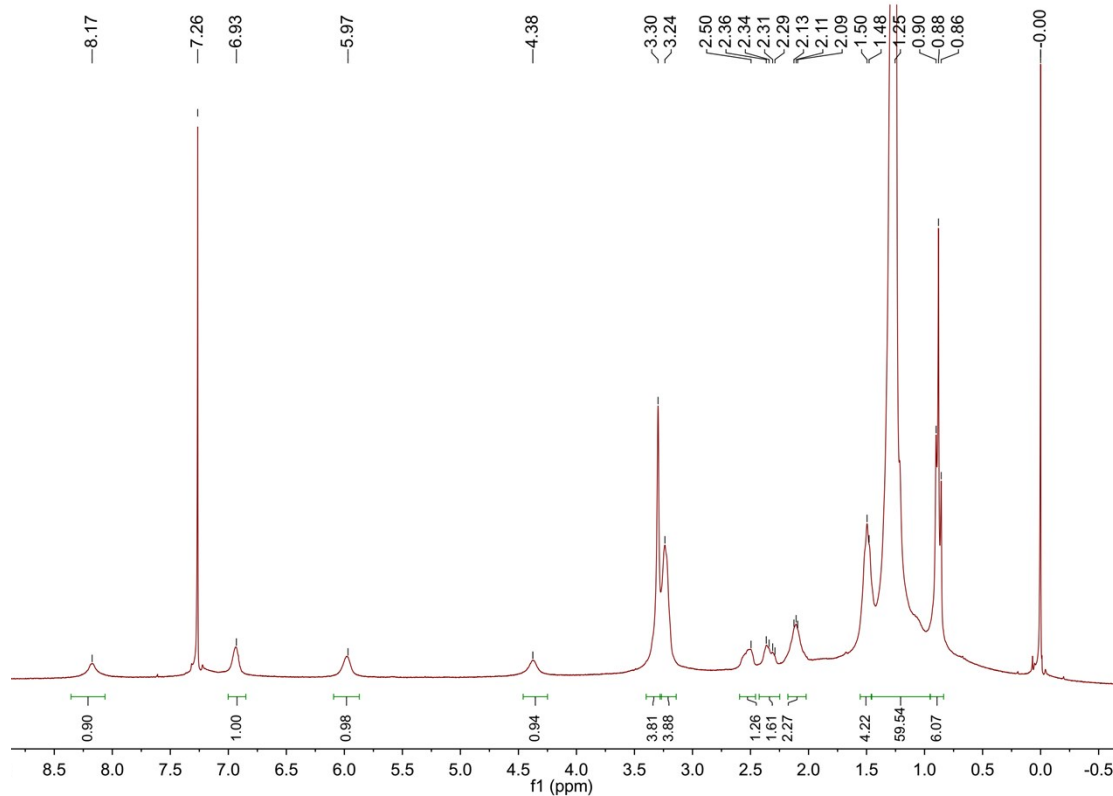


Figure S9. Cartoon representation of the possible changes of the molecular packing model for **1** in the toluene gel with C₆₀.

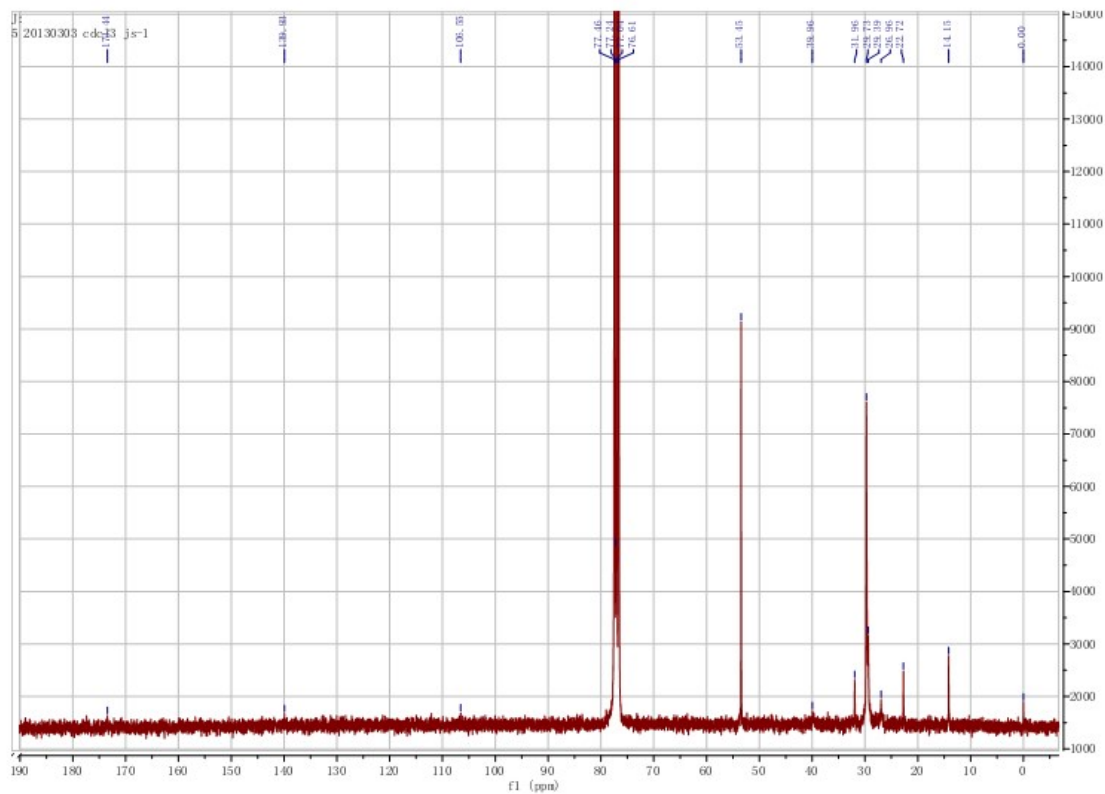


Figure S10. The transparency changes of toluene gel before and after adsorption of rhodamine B.

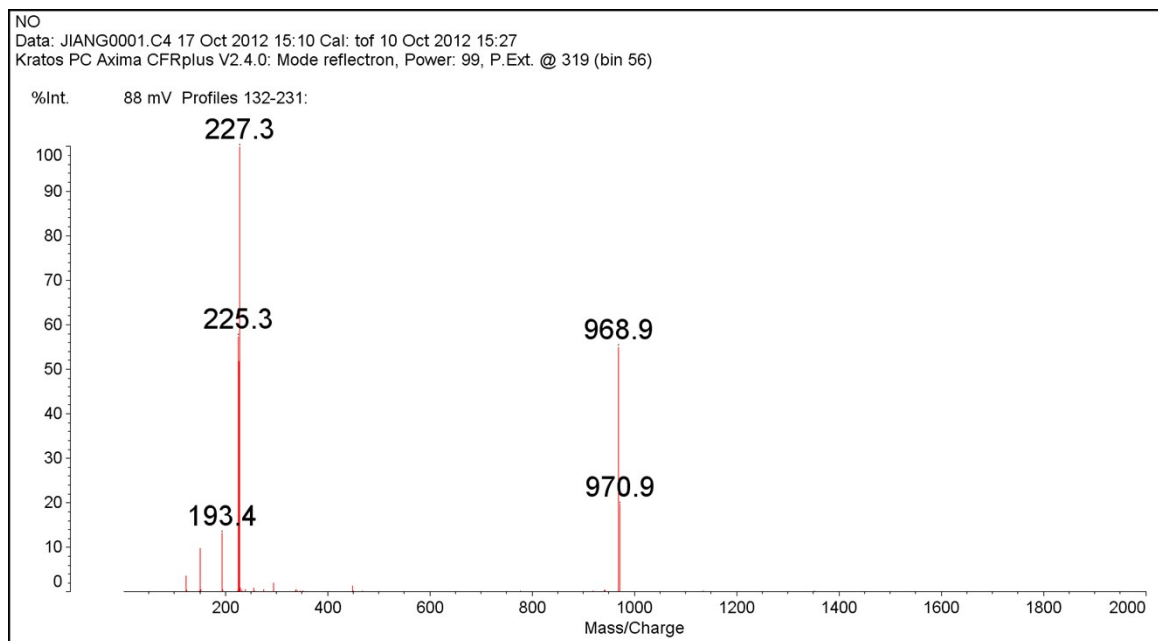
2. Structural characterization



$^1\text{H-NMR}$ of the gelator 1



¹³C-NMR of the gelator 1



MALDI-TOF-MS of the gelator 1